

PRELIMINARY LIST OF FISHES FROM SOMBRERO ISLAND, PHILIPPINES, WITH FIFTEEN NEW RECORDS

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Abstract.—The ichthyofauna of Sombrero Island, Philippines, was surveyed in preparation for the establishment of Sombrero Island as the first marine park in the Philippines. Collecting efforts and visual surveys showed a total of 240 species in 44 families, with collections accounting for 142 of these species. Fifteen species in seven families (Blenniidae, Syngnathidae, Solenichthyidae, Ophichthidae, Synodontidae, Platycephalidae, and Limnichthyidae) are recorded for the first time from Philippine waters.

Introduction

During the latter part of 1979 and early 1980, the ichthyofauna of Sombrero Island, Batangas, Philippines (120°49'E, 13°42'N), was studied in preparation for the establishment of Sombrero Island as a marine park. The study site is a very small island (not more than 15,000 sq m) located in the Verde Island Passage between the islands of Luzon and Mindoro (Fig. 1).

The following list of fishes of Sombrero Island (Table 1) is based primarily on those collected by the authors at four localities and sight records made at various locations by Murdy, Ferraris, and Steene. One large rotenone station was carried out on the western side of the island at a depth of approximately 5–7 m, over a dense coral bottom. Two small rotenone stations were made along the northeastern corner of the island among large boulders at a depth of 1 m and at 10 m on a coral bottom. Another small rotenone station was made at the southeastern corner at 1 m among large boulders. Rotenone was also used in some instances to collect certain species that were observed during visual surveys.

Visual surveys were conducted at four locations; eastern side of the island at 1–35 m, over mostly sand and coral rubble bottom; northwestern side at 1–2 m, over coral; northeastern side, 1–4 m, over large rocks and coral; and northwestern side in 20–25 m at the edge of the coral reef flat. Record keeping on surveys was facilitated by the use of an underwater tape recorder. Fishes that were observed but not collected are indicated by an asterisk (*) after their names in Table 1. We have adopted the phylogenetic arrangement proposed by Nelson (1976), except in a few cases where different family names are used due to recent revisions.

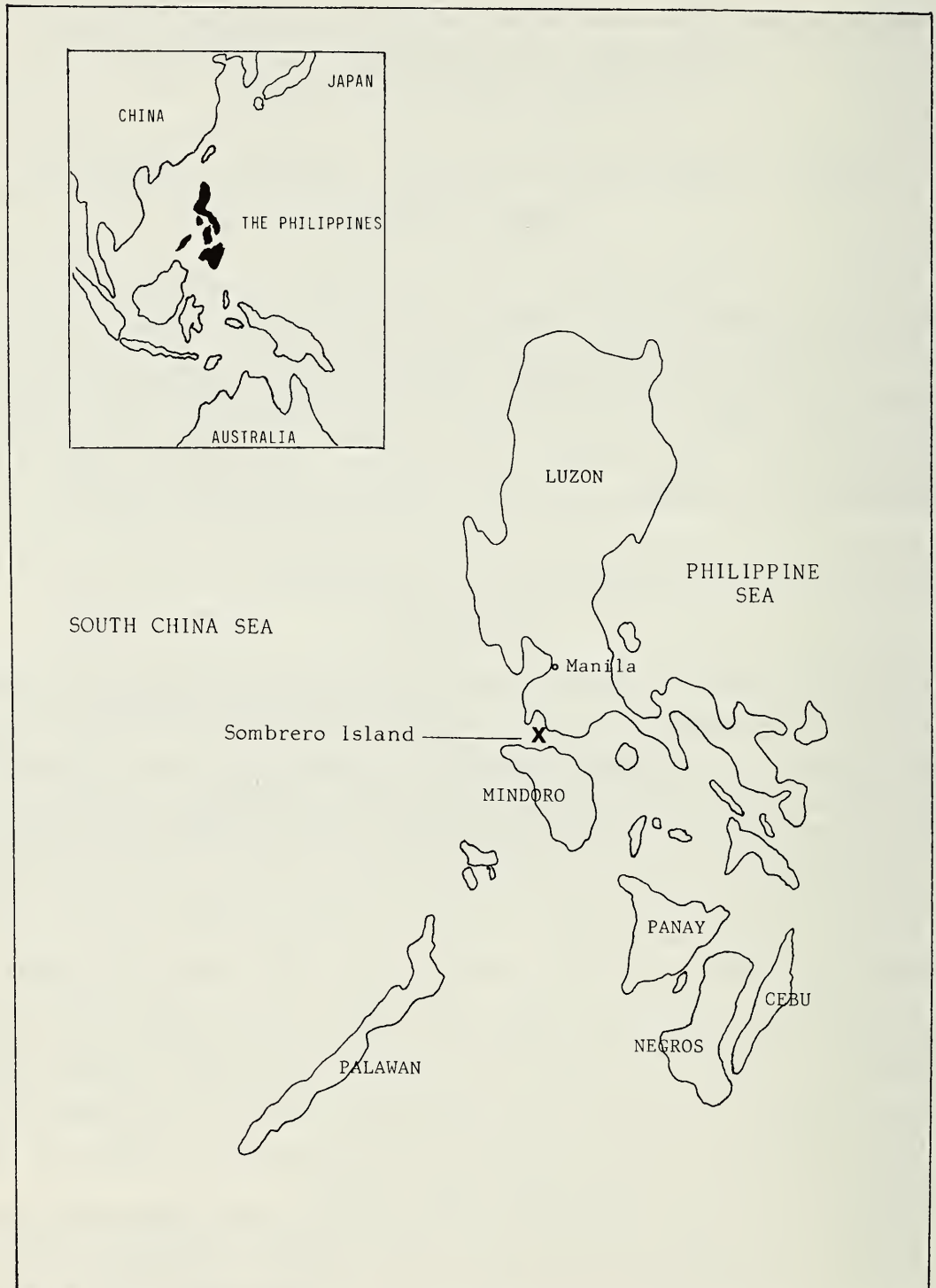


Fig. 1. The approximate location of Sombbrero Island in relation to the major islands of the Philippines.

Fifteen species are reported for the first time from Philippine waters. These include six blennies, *Ecsenius oculus* and *E. opsifrontalis* (see McKinney and Springer 1976), *Entomacrodus epalzeocheilus* (see Springer 1972), *E. thalassinus longicirrus* (see Springer 1967), *Glyptoparus delicat-*

Table 1.—List of fishes of Sombrero Island, Philippines. Fishes were collected or observed at the following locations: (1) eastern side, 1–35 m, over sand and coral rubble bottom; (2) southeastern side at 1 m among large boulders; (3) northeastern side, 1–4 m, over large rocks and coral; (4) northwestern side, 1–2 m, over coral bottom; (5) northwestern side, 20–25 m, at edge of coral reef flat; (6) western side, 5–7 m, over coral bottom; and (7) northeastern side at 10 m, over coral bottom. C = collected, X = observed.

SPECIES	LOCATION						
	Sand		Boulder		Coral		
	1	2	3	4	5	6	7
Family: Muraenidae							
<i>Gymnothorax margitophorus</i> Bleeker, 1865							C
<i>Gymnothorax petelli</i> Bleeker, 1856				C			
<i>Gymnothorax zonipectis</i> Seale, 1906							C
<i>Gymnothorax</i> sp.							C
Family: Ophichthidae							
<i>Muraenichthys laticaudatus</i> (Ogilby, 1897) R							C
Family: Plotosidae							
<i>Plotosus anguillaris</i> (Bloch, 1794)*		X					
Family: Synodontidae							
<i>Saurida gracilis</i> (Quoy and Gaimard, 1824)*		X					
<i>Synodus englemani</i> Schultz, 1953 R							C
<i>Synodus</i> sp.							C
Family: Bythiidae							
<i>Brosmophyciops</i> sp.							C
Family: Antennariidae							
<i>Antennarius coccineus</i> (Lesson, 1830)							C
Family: Holocentridae							
<i>Adioryx cornutus</i> (Bleeker, 1853)							C
Family: Aulostomidae							
<i>Aulostomus chinensis</i> (Linnaeus, 1766)*			X		X		X
Family: Fistulariidae							
<i>Fistularia villosa</i> Klunzinger, 1871*		X	X				
Family: Solenichthyidae							
<i>Solenichthys armatus</i> (Weber, 1913) R							C
Family: Syngnathidae							
<i>Choeroichthys brachysoma</i> (Bleeker, 1855)							C
<i>Corythoichthys amplexus</i> Dawson and Randall, 1975 R							C
<i>Corythoichthys schultzi</i> Herald, 1953 R							C
<i>Dentirostrum janssi</i> Herald and Randall, 1972 R							C
<i>Dunckerocampus dactyliophorus</i> (Bleeker, 1853)*		X					
<i>Micrognathus</i> sp.							C
<i>Phoxocampus diacanthus</i> (Schultz, 1943) R							C

Table 1.—Continued.

SPECIES	LOCATION						
	Sand	Boulder			Coral		
	1	2	3	4	5	6	7
Family: Scorpaenidae							
<i>Dendrochirus zebra</i> (Cuvier, 1829)*					X		
<i>Pterois antennata</i> (Bloch, 1787)							C
<i>Scorpaenodes</i> sp.							C
<i>Scorpaenopsis diabolus</i> (Cuvier, 1829)		C					
<i>Sebastipistes</i> sp.							C
Scorpaenidae (1 species)							C
Family: Platycephalidae							
<i>Thysanophrys arenicola</i> Schultz, 1960 R							C
<i>Thysanophrys chiltoni</i> Schultz, 1960							C
Family: Serranidae							
<i>Anthias mortoni</i> Macleay, 1884							C
<i>Anthias squamipinnis</i> (Peters, 1855)*	X		X		X		
<i>Anthias tuka</i> (Herre and Montalban, 1927)		C					
<i>Anyperodon leucogrammicus</i> (Valenciennes, 1828)							C
<i>Cephalopholis argus</i> (Bloch and Schneider, 1801)							C
<i>Cephalopholis urodelus</i> (Bloch and Schneider, 1801)*			X				
<i>Epinephalus fasciatus</i> (Forskål, 1775)	X						C
<i>Epinephalus summana</i> (Forskål, 1775)							C
<i>Luzonichthys</i> sp.							C
<i>Variola louti</i> (Forskål, 1775)			X				C
Family: Pseudochromidae							
<i>Pseudochromis diadema</i> Lubbock and Randall, 1978*					X		
<i>Pseudochromis</i> sp.			C				C
Family: Pseudogrammatidae							
<i>Pseudogramma polyacanthus</i> (Bleeker, 1856)							C
Family: Plesiopidae							
<i>Plesiops corallicola</i> Bleeker, 1853				C			
Family: Acanthoplesiidae							
<i>Acanthoplesiops</i> sp.							C
Family: Apogonidae							
<i>Apogon angustata</i> (Smith and Radcliffe, 1911)							C
<i>Apogon aureus</i> (Lacepède, 1803)*	X						
<i>Apogon bandanensis</i> Bleeker, 1854							C
<i>Apogon coccineus</i> Rüppell, 1835							C
<i>Apogon kallopterus</i> Bleeker, 1856							C
<i>Apogon multitaeniatus</i> Ehrenberg, 1828							C
<i>Apogon novemfasciatus</i> Valenciennes, 1828							C
<i>Cheilodipterus macrodon</i> (Lacepède, 1802)							C

Table 1.—Continued.

SPECIES	LOCATION						
	Sand		Boulder		Coral		
	1	2	3	4	5	6	7
Family: Lutjanidae							
<i>Lutjanus decussatus</i> (Cuvier and Valenciennes, 1828)*				X			
<i>Macolor niger</i> (Forskål, 1775)*	X						
Family: Caesiodidae							
<i>Caesio pisang</i> Bleeker, 1853*			X				
Family: Nemipteridae							
<i>Scolopsis bilineatus</i> (Bloch, 1793)*	X	X	X	X	X		
Family: Lethrinidae							
<i>Lethrinus harak</i> (Forskål, 1775)*	X						
Family: Mullidae							
<i>Parupeneus barberinus</i> (Lacepède, 1802)*			X		X		
<i>Parupeneus indicus</i> (Shaw, 1803)*	X						
<i>Parupeneus multifasciatus</i> (Quoy and Gaimard, 1824)*	X						
Family: Chaetodontidae							
<i>Chaetodon baronessa</i> Cuvier, 1829	X	X	X				C
<i>Chaetodon citrinellus</i> Cuvier, 1831*			X				
<i>Chaetodon kleini</i> Bloch, 1790*	X	X	X	X			
<i>Chaetodon lineolatus</i> Quoy and Gaimard, 1831*		X					
<i>Chaetodon lunula</i> (Lacepède, 1802)*			X				
<i>Chaetodon melannotus</i> Bloch and Schneider, 1801*		X					
<i>Chaetodon mertensi</i> Cuvier, 1831*						X	
<i>Chaetodon punctatofasciatus</i> Cuvier, 1831*			X				
<i>Chaetodon rafflesi</i> Bennett, 1830*		X	X				
<i>Chaetodon selene</i> Bleeker, 1853*			X				
<i>Chaetodon striangulus</i> (Gmelin, 1788)		X		X			C
<i>Chaetodon trifascialis</i> Quoy and Gaimard, 1824							C
<i>Chaetodon trifasciatus</i> Park, 1797	X		X	X			C
<i>Chaetodon vagabundus</i> Linnaeus, 1758*		X					
<i>Chaetodon xanthurus</i> Bleeker, 1857*			X				
<i>Heniochus varius</i> (Cuvier, 1829)*		X					
Family: Pomacanthidae							
<i>Centropyge bicolor</i> Bloch, 1787*	X						
<i>Centropyge vroliki</i> (Bleeker, 1853)	X			X			C
<i>Genicanthus lamarck</i> (Lacepède, 1802)*			X				
Family: Pomacentridae							
<i>Abudefduf sordidus</i> (Forskål, 1775)*	X						
<i>Abudefduf vaigensis</i> (Quoy and Gaimard, 1824)*	X	X	X				
<i>Acanthochromis polyacanthus</i> (Bleeker, 1855)							C
<i>Amblyglyphidodon aureus</i> (Cuvier, 1830)*					X		

Table 1.—Continued.

SPECIES	LOCATION						
	Sand		Boulder		Coral		
	1	2	3	4	5	6	7
<i>Amphiprion clarkii</i> (Bennett, 1830)			X				C
<i>Chromis analis</i> (Cuvier, 1830)*					X		
<i>Chromis bicolor</i> (Macleay, 1882)				X			C
<i>Chromis caerulea</i> (Cuvier, 1830)	X	X	X				C
<i>Chromis retrofasciata</i> Weber, 1913*		X					
<i>Chromis ternatensis</i> (Bleeker, 1856)							C
<i>Chromis xanthochir</i> (Bleeker, 1851)							C
<i>Dascyllus reticulatus</i> (Richardson, 1846)	X			X			C
<i>Dascyllus trimaculatus</i> (Rüppell, 1828)	X	X	X	X	X		C
<i>Glyphidodontops rex</i> (Snyder, 1909)							C
<i>Plectroglyphidodon dickii</i> (Lienard, 1839)*				X			
<i>Plectroglyphidodon lacrymatus</i> (Quoy and Gaimard, 1824)				X			C
<i>Plectroglyphidodon leucozona</i> (Bleeker, 1859)							C
<i>Pomacentrus amboinensis</i> Bleeker, 1868							C
<i>Pomacentrus brachialis</i> Cuvier, 1830*		X	X	X			
<i>Pomacentrus coelestis</i> Jordan and Starks, 1901	X	X	X	X			C
<i>Pomacentrus molluccensis</i> Bleeker, 1853				X			C
<i>Pomacentrus philippinus</i> Evermann and Seale, 1907							C
<i>Pomacentrus rhodonotus</i> Bleeker, 1853*	X						
<i>Pomacentrus vaiuli</i> Jordan and Seale, 1906							C
<i>Pomachromus richardsoni</i> Snyder, 1909*	X	X	X	X			
Family: Cirrhitidae							
<i>Cirrhitichthys falco</i> Randall, 1963		X		X			C
<i>Cirrhitichthys serratus</i> Randall, 1963*			X				
<i>Paracirrhites arcatus</i> (Cuvier, 1829)*			X				
<i>Paracirrhites forsteri</i> (Bloch and Schneider, 1801)*		X					
Family: Labridae							
<i>Anampses meleagrides</i> Cuvier and Valenciennes, 1839*	X		X				
<i>Bodianus mesothorax</i> (Bloch and Schneider, 1801)*		X		X	X		
<i>Cheilinus oxycephalus</i> Bleeker, 1853							C
<i>Cheilinus trilobatus</i> Lacepède, 1802*			X				
<i>Cirrhilabrus lubbocki</i> Randall and Carpenter, 1980*					X		
<i>Cirrhilabrus temminckii</i> Bleeker, 1852							C
<i>Coris gaimard</i> (Quoy and Gaimard, 1824)	X		X				C
<i>Coris variegata</i> (Rüppell, 1835)*	X			X			
<i>Epibulis insidiator</i> (Pallas, 1770)							C
<i>Halichoeres centriquadrus</i> (Lacepède, 1802)*			X	X			
<i>Halichoeres hartzfeldii</i> (Bleeker, 1852)*	X						
<i>Halichoeres hoevenii</i> (Bleeker, 1851)*					X		
<i>Halichoeres margaritaceus</i> (Valenciennes, 1839)*	X		X				
<i>Halichoeres scapularis</i> (Bennett, 1831)*	X		X				
<i>Halichoeres trimaculatus</i> (Quoy and Gaimard, 1834)*	X						

Table 1.—Continued.

SPECIES	LOCATION						
	Sand		Boulder			Coral	
	1	2	3	4	5	6	7
<i>Halichoeres</i> (2 species)							C
<i>Hemigymnus fasciatus</i> (Bloch, 1792)*	X						
<i>Hemigymnus melapterus</i> (Bloch, 1791)*	X		X	X			
<i>Hologymnosus</i> (2 species)							C
<i>Labrichthys unilineata</i> (Guichenot, 1847)			X	X			C
<i>Labroides dimidiatus</i> (Valenciennes, 1839)	X	X	X	X			C
<i>Macropharygodon meleagris</i> (Valenciennes, 1839)							C
<i>Pseudocheilinus evanidus</i> Jordan and Evermann, 1902							C
<i>Pseudocheilinus hexataenia</i> (Bleeker, 1857)				X			C
<i>Stethojulis trilineata</i> (Bloch and Schneider, 1801)*		X					
<i>Thalassoma amblycephala</i> (Bleeker, 1856)*	X	X	X				
<i>Thalassoma fuscum</i> (Lacepède, 1802)*		X					
<i>Thalassoma hardwicke</i> (Bennett, 1830)*		X	X	X			
<i>Thalassoma lunare</i> (Linnaeus, 1758)	X	X	X	X			C
<i>Thalassoma janseni</i> (Bleeker, 1856)*		X					
<i>Thalassoma quinquevittata</i> (Lay and Bennett, 1839)*		X					
<i>Wetmorella triocellata</i> Schultz and Marshall, 1954							C
Family: Scaridae							
<i>Scarus ghobban</i> Forskål, 1775*	X						
<i>Scarus gibbus</i> Rüppell, 1828*	X						
<i>Scarus rhodopterus</i> (Bleeker, 1861)*	X	X					
<i>Scarus scaber</i> Cuvier and Valenciennes, 1839*	X	X	X				
<i>Scarus sordidus</i> Forskål, 1775*	X						
Family: Mugiloididae							
<i>Parapercis cephalopunctata</i> (Seale, 1900)	X			X			C
<i>Parapercis polyophtalma</i> Cuvier, 1829*			X				
<i>Parapercis tetracantha</i> (Lacepède, 1800)*	X		X		X		
Family: Limnichthyidae							
<i>Limnichthys donaldsoni</i> Schultz, 1960 R	C						X
Family: Tripterygiidae							
<i>Enneapterygius</i> (2 species)		C					C
<i>Helcogramma trigloides</i> Bleeker, 1858				C			
<i>Helcogramma</i> (5 species)		C					C
Family: Blenniidae							
<i>Andamia</i> sp.		C	C				
<i>Atrosalarias fuscus</i> (Rüppell, 1838)							C
<i>Cirripectes variolosus</i> (Cuvier and Valenciennes, 1836)		C	C				
<i>Crossosalarias macropsilus</i> Smith-Vaniz and Springer, 1971 R							C
<i>Ecsenius bicolor</i> (Day, 1888)	X	X	X				C C
<i>Ecsenius lividinalis</i> Chapman and Schultz, 1952							C
<i>Ecsenius oculus</i> Springer, 1971 R		C	C				

Table 1.—Continued.

SPECIES	LOCATION						
	Sand		Boulder			Coral	
	1	2	3	4	5	6	7
<i>Ecsenius opsifrontalis</i> Chapman and Schultz, 1952 R						C	C
<i>Entomacrodus caudofasciatus</i> (Regan, 1909)		C	C				
<i>Entomacrodus decussatus</i> (Bleeker, 1858)		C					
<i>Entomacrodus epalzeocheilus</i> (Springer, 1967) R		C					
<i>Entomacrodus striatus</i> Quoy and Gaimard, 1836			C				
<i>Entomacrodus thalassinus longicirrus</i> Springer, 1967 R		C	C				
<i>Glyptoparus delicatulus</i> Smith, 1959 R		C					
<i>Istiblennius</i> (2 species)		C					
<i>Meicanthus atrodorsalis</i> Gunther, 1877*				X			
<i>Meicanthus grammistes</i> (Cuvier and Valenciennes, 1836)	X		X			C	
<i>Nannosalarias nativitatus</i> (Regan, 1909)			C				
<i>Parenchelyurus hepburni</i> (Snyder, 1908)		C					
<i>Plagiotremus rhinorhynchus</i> (Bleeker, 1852)*	X						
<i>Plagiotremus tapeinosoma</i> (Bleeker, 1857)*				X			
<i>Rhabdoblennius</i> sp.		C					
<i>Salarias</i> sp.		C					
Family: Gobiidae							
<i>Amblyeleotris fasciata</i> (Herre, 1953)	X		X			C	
<i>Amblyeleotris steinitzi</i> (Klausewitz, 1974)*	X						
<i>Asterropteryx semipunctatus</i> (Rüppell, 1838)*	X						
<i>Bathygobius cotticeps</i> (Steindachner, 1879)					C		
<i>Bryaninops</i> sp.							C
<i>Callogobius</i> sp.							C
<i>Cryptocentrus cinctus</i> (Herre, 1936)*	X						
<i>Eviota seebreei</i> Jordan and Seale, 1906*			X				
<i>Eviota smaragdus</i> Jordan and Seale, 1906*			X				
<i>Eviota</i> (2 species)							C
<i>Fusigobius</i> (2 species)							C
<i>Gnatholepis</i> sp.							C
<i>Gobiodon</i> (2 species)		C					C
<i>Istigobius</i> sp.	X						C
<i>Paragobiodon modestus</i> (Regan, 1908)							C
<i>Paragobiodon xanthosoma</i> (Bleeker, 1852)							C
<i>Pleurosicya</i> (3 species)							C
<i>Trimma macrophthalma</i> (Tomiyama, 1936)							C
<i>Trimma okinawae</i> (Aoyagi, 1948)							C
<i>Trimma</i> (3 species)							C
<i>Valenciennesa puellaris</i> (Tomiyama, 1956)*	X						
<i>Valenciennesa sexguttatus</i> (Valenciennes, 1837)*	X						
<i>Valenciennesa strigatus</i> (Broussonet, 1782)*	X						
Family: Acanthuridae							
<i>Acanthurus glaucopareius</i> Cuvier, 1829*		X					
<i>Acanthurus lineatus</i> (Linnaeus, 1758)*		X		X			

Table 1.—Continued.

SPECIES	LOCATION						
	Sand		Boulder		Coral		
	1	2	3	4	5	6	7
<i>Acanthurus mata</i> (Cuvier, 1829)*			X				
<i>Acanthurus pyroferus</i> Kittlitz, 1834*			X				
<i>Acanthurus triostegus</i> (Linnaeus, 1758)*		X	X				
<i>Ctenochaetus binotatus</i> Randall, 1955							C
<i>Ctenochaetus striatus</i> (Quoy and Gaimard, 1824)	X	X		X			C
<i>Naso lituratus</i> (Bloch and Schneider, 1801)*		X	X				
<i>Naso tuberosus</i> Lacepède, 1802*			X				
<i>Zebrasoma scopas</i> (Cuvier, 1829)	X	X	X	X			C
Family: Zanclidae							
<i>Zanclus cornutus</i> (Linnaeus, 1758)*	X		X	X			
Family: Gobiesocidae							
<i>Diademichthys lineatus</i> (Sauvage, 1883)*			X				
<i>Lepidichthys frenatus</i> Waite, 1904*			X				
Family: Callionymidae							
<i>Synchiropus ocellatus</i> (Pallas, 1774)							C
Family: Balistidae							
<i>Balistapus undulatus</i> (Park, 1797)*		X					
<i>Sufflamen chrysopterus</i> (Bloch and Schneider, 1801)*		X					
Family: Monacanthidae							
<i>Acreichthys melanocephalus</i> (Bleeker, 1853)							C
<i>Oxymonacanthus longirostris</i> (Bloch and Schneider, 1801)*				X			
<i>Paraluteres prionurus</i> (Bleeker, 1851)							C
Family: Ostraciidae							
<i>Ostracion meleagris</i> Shaw, 1796*		X					
Family: Tetraodontidae							
<i>Arothron nigropunctatus</i> Bloch and Schneider, 1801		X					C
<i>Arothron</i> sp.							C
<i>Canthigaster bennetti</i> (Bleeker, 1854)*			X				
<i>Canthigaster valentini</i> (Bleeker, 1853)	X		X				C
Family: Diodontidae							
<i>Diodon holacanthus</i> Linnaeus, 1758*			X				
<i>Diodon literosus</i> Shaw, 1806*			X				

ulus (see Smith 1959), and *Crossosalarias macrospilus* (see Smith-Vaniz and Springer 1971); four pipefishes, *Corythoichthys amplexus* and *C. schultzi* (see Dawson 1977a), *Dentirostrum janssi* (see Herald and Randall 1972), and *Phoxocampus diacanthus* (see Dawson 1977b); one ghost pipefish, *Solenichthys armatus* (see Herre 1953); one snake eel, *Muraenichthys*

laticaudatus (see Herre 1953); one lizardfish, *Synodus englemani* (see Allen *et al.* 1976); one flathead, *Thysanophrys arenicola* (see Schultz 1966); and one tommy fish, *Limnichthys donaldsoni* (see Nelson 1978). These fishes are indicated by an (R) after their names in Table 1.

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